



Modifying Fences to Deter Big Game

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In many areas of Montana, deer, elk, and antelope cause significant monetary losses to agricultural producers by consuming forage meant for livestock or cash grain crops. Some livestock producers may also find it desirable to fence big game out of pastures holding livestock to prevent possible disease transmission between



Elk Jumping Fence (photo by D. Bennett)

wildlife and domestic animals. When considering wildlife proof fencing, the traditional solution is some variation of an 8 foot high woven wire fence. Unfortunately, this type of fence is very expensive, often costing up to \$15,000 dollars per mile for materials alone. In order for a fence to be a practical solution to a wildlife depredation problem, the cost of the fence construction and upkeep cannot exceed the losses to the wildlife over the expected lifetime of the fence. For most crops and pastures, a low-cost fence needs to be used to provide relief from damage, but still must be effective at

stopping deer and elk from foraging in the protected area.

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Many producers will find that reducing the cost of fencing by modifying existing materials instead of constructing new fences will provide a profitable means of reducing wildlife depredation. Most livestock pastures in Montana are fenced with some variation of a four strand barbed wire or woven wire fence less than 4 feet high to contain cattle or sheep. These fences usually allow for free passage by deer and elk by crawling between the wires or jumping over the fence. However, for a significantly lower cost than replacement, these fences can be modified to keep deer and elk out.

Research at Montana State University has found that woven wire fences 6 feet high can be effective at deterring deer and elk from a potential food source. Woven wire is necessary to keep animals from crawling between separate wires. Although most deer and elk are capable of jumping over fences of this height when

stressed, the desire to reach a food source is not enough to encourage them to make the attempt. Fences of this height can be constructed using the materials already in place on the standard livestock fence, and labor is greatly reduced since the posts, and possibly the lower section of woven wire, are already in place.

To modify an existing fence, the height of the posts must be extended to 6 feet. This is easily accomplished with a short section of 3/8 inch steel rebar. If the existing posts are wooden, drill a 3/8 inch diameter hole approximately 6 inches deep into the top of the post. Drive a sufficient length of rebar, usually about 30 inches, into the hole to bring the total height to 6 feet. Using a short step ladder or standing in the back of a pickup makes this process much more efficient. All the rebar has to support is the top two feet of woven wire, and it will be sufficiently strong. Any pressure from animals trying to crawl through or running into the fence will be against the posts, not the rebar extension. If steel posts are in place instead of wooden, two u-bolt style clamps, two hose clamps, or a short weld can be used to attach the rebar to the post.

After extending the posts, string woven wire directly over the barbed wires to bring the height to 6 feet. In most cases, it is cheaper to use two sections of woven wire, one 39 inches high and one 32 inches high, rather than a full 72 inch high roll. The gaps in the woven wire should measure no more than 6 inches by 6 inches to be effective. Use the 39 inch roll along the ground, making sure that it is in contact with the ground at all points. Deer in particular will try to crawl under a fence rather than jump over it, and any gap will soon be capitalized. If a few animals get through, they can create a very large hole in the fence. Stretch the wire tight, and use staples or wire ties to attach it to the posts. Anywhere there is a ditch or depression, be sure to anchor the wire to the ground to eliminate any places where an animal could crawl under the fence.

After the bottom section is in place, string the 32 inch high roll immediately above it, bringing the height of the fence to

6 feet. Use mechanic or bailing wire to tie this section to the rebar extensions, and be sure to place hog rings or a tie wire between the two sections of woven to hold them together. If there are gaps between the two sections of woven wire, deer or elk may find these and use them to crawl through the fence. Two ties between each post should be sufficient in most cases to hold the sections of woven wire together. If the existing fence already has a section of woven wire in place along the ground, that is a benefit. Simply string an additional section of woven wire above the one that is already there. If the fence ends up being a little taller due to the materials in place, that is fine as long as it is at least 6 feet in total height and the rebar post extensions were made the correct length.

In order to maintain a positive cost-benefit ratio, it is very important to only use fences to keep deer or elk out of areas where they cause significant monetary losses, or where the chance of disease transmission is very high. Fencing extremely large areas, or entire ranches, will prove to be economically detrimental in the long run. Producers will only save money by using these fences in areas where the potential for damage justifies the expense and upkeep of the fence.

Before installing any wildlife fence, carefully consider the costs versus the benefits.

Another concern with fencing large areas of land is reducing wildlife passage. If animals are not free to move through the property, for example in the case of a migration route, they are much more likely to attempt to breach the fence, and damage to the fence is the likely result. For this reason, as well as maintaining good connections between habitat areas, it is recommended that wildlife fences are not built around any area larger than 640 acres, or one square mile. By limiting each side of the fence to one mile in length or less, deer and elk should be able to circumvent the fence without problem. Fences any longer

in length may lead to increased attempts to breach the fence.

Before installing any wildlife fence, carefully consider of the costs versus the benefits. Even though modifying a fence is much more affordable than replacing it, there is still an investment in both initial construction and upkeep. Using a fence to deter deer or elk use will not be profitable in all situations. However, if the damage being done is significant enough to justify a preventative measure, fencing is usually the most effective way to keep deer and elk from using a particular area.

With some planning, effort, and perhaps a little innovation, nearly any fence

in good condition can be converted to a six foot high deer and elk deterrent to protect crops and livestock forage in a rangeland setting. By using what materials are already in place, significant savings in material and labor costs will result. This adaptation instead of traditional wildlife proof fencing will make it much more likely that the protection from depredation will pay for itself over time. As long as a livestock containment fence is already in place, there is generally no need to replace it with a traditional 8 foot high wildlife proof fence to keep deer and elk from causing damage to crops and pastures or mingling with domestic livestock.



Early morning elk leaving the haystack (Photo by Justin Uhrig)

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